

PUBLICATION NUMBER : 05241048
PUBLICATION DATE : 21-09-93

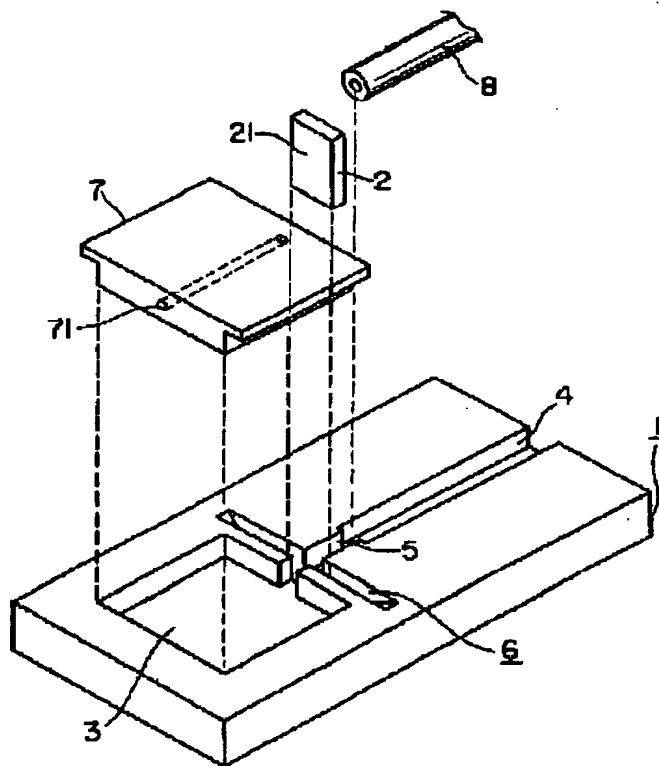
APPLICATION DATE : 26-02-92
APPLICATION NUMBER : 04039615

APPLICANT : SUMITOMO ELECTRIC IND LTD;

INVENTOR : SEMURA SHIGERU;

INT.CL. : G02B 6/42 H01L 33/00 H01S 3/18

TITLE : COUPLING DEVICE FOR OPTICAL PARTS



ABSTRACT : PURPOSE: To provide the coupling device which decreases intricate operations to enhance coupling efficiency without adjustment in coupling of optical parts by using a microlens.

CONSTITUTION: A thin type polarizer 2 is installed in the central part of a silicon substrate 1 by positioning the plane 21 of polarization and the surface of the substrate 1 perpendicular. A guide groove 3 for a laser and a guide groove 4 for an optical fiber are constituted in the substrate 1 so as to hold the polarizer plane 21 of this thin type polarizer 2. A groove 5 for an optical path is constituted to couple the guide grooves 3, 4 and the thin type polarizer 2 in the substrate 1. A guide 7 for the laser installed with a semiconductor laser and the optical fiber 8 are arranged in the respective guide grooves 3, 4. The guide grooves 3, 4 are so constituted that the optical axes of the guide 7 for the laser and the optical fiber 8 align and the optical axes and the polarizer plane 21 are positioned perpendicular at this time.

COPYRIGHT: (C)1993,JPO&Japio